

Serial No. 09/784,141

NIT-254

IN THE CLAIMS

1-3 (Canceled).

4. (Previously Presented) A magnetic thin film head comprising:

a write head element; and

a read head element including a sensor film;

wherein a ferromagnetic film having a soft magnetic characteristic and a magnetic shield function is provided in the vicinity of said sensor film,

wherein said ferromagnetic film comprises NiFe permalloy material and is formed by an electroplating method,

wherein in a first region of said ferromagnetic film which exceeds a film thickness of 1.0 μm from an initial formed layer, Ni content accuracy is ± 0.1 wt%, and

wherein in a second region of said ferromagnetic film where a film thickness is 1.0 μm or less from said initial formed layer, Ni content accuracy is ± 0.3 wt%.

5-9 (Canceled).

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10. (Previously Presented) A magnetic disk apparatus having a magnetic thin film head comprising:

a magnetic disk;

a magnetic disk driving unit;

a magnetic thin film head comprising a write head element and a read head element; and

a magnetic head driving unit,

wherein a ferromagnetic film having a soft magnetic characteristic and a magnetic shield function is formed of NiFe permalloy material by electroplating in the vicinity of a sensor film arranged as said read head element,

wherein in a first region of said ferromagnetic film in which a film thickness exceeds 1.0 μm from an initial formed layer, Ni content accuracy is ± 0.1 wt%, and

wherein in a second region of said ferromagnetic film where a film thickness is of 1.0 μm or less, Ni content accuracy is ± 0.3 wt%.

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11. (Previously Presented) The magnetic thin film head according to claim 4, wherein Ni in composition of said ferromagnetic film is 80.8 wt% to 82.0 wt%.

12. (Previously Presented) The magnetic thin film head according to claim 4, wherein when said ferromagnetic film is formed, a current density used for the electroplating changes.